

The Setting

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Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item. 437
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One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. It may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village. 434
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4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans. 121

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland. 144

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152-4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14-16). 174
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In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326-8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field. 175
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The early relationships between Orokaiva and Australians may be gleaned 175

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648 their home country. American troops, by their equal treatment of Negro
777 soldiers, created the impression that racial barriers had no place in their society!
[439] The troops' friendliness to the Papuans was tangibly expressed by gifts, not only
of tobacco and other small luxuries, but also of discarded tools and equipment
still used in villages today. It is in these events that the Orokaiva saw the portent
of the coming of a new era.

731 *The Eruption of Mount Lamington.* In 1951, a Peléan eruption occurred on
Mount Lamington. The *nuée ardente* produced by this eruption completely
devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000
people were killed and there were hardly any survivors of the numerous Sangara
tribe. Those who did survive were provided with food, medicines and other
comforts by the government and were for some time maintained in evacuation
camps. The evacuees were not at once allowed to return to their villages as the
authorities feared further explosions in the mountain. Some officials saw in this
sequence of events a chance to create Papuan model communities with
up-to-date socio-economic institutions. These plans for village reform, whatever
their merits, were not realised at that time, partly because the danger of further
explosions was soon greatly reduced, in the view of volcanologists, so that the
people were allowed to go back to their old village sites; partly also, because the
reforms were not favoured by the Australian administration which assumed
power after the defeat of the Labour Government in 1951.

648 *Intensification of Development Policy.* Large scale, expertly planned social,
657 economic and political development did not start in Papua until around 1960
(Parker 1966:189). In the economic sphere the first major development success
was the building up of a coffee industry based on the production of indigenous
growers using their own village land. While by far the largest quantity of this
coffee is grown in the Highlands, the yield in the Northern District was enough
[464] to assure to any Orokaiva who entered the scheme an income of something like
[434] \$60-100, in the year 1966-67. During that year all the villages I visited, both
on the foothills and in the plains, were producing coffee. It was an activity in
which any able-bodied man resident in a village would normally engage to a
greater or lesser extent. Several factors aided the development of this industry.

[242] *Agricultural extension work to train the population of the Northern District*
in coffee growing began immediately after the eruption. A training school was
set up in Popondetta. Papuan agricultural assistants were trained to give basic
instruction and to distribute seed. These assistants spread knowledge not only
while they were employed by the government, but even more when they went
back to their villages and grew their own coffee.

648 Title improvement work is also beginning to contribute to agricultural
657 development. Until 1956, the government kept entirely aloof from indigenous
423 tenure problems and passed no ordinances enabling it to adjudicate in land
disputes. By that time, however, it had become obvious that commercial
arboriculture could be developed only to a limited extent unless a land registry
was introduced and the traditional Orokaiva principle of maintaining residual
rights in land was abandoned. Though the first attempts to change the land
tenure system were unsuccessful, in 1967 it looked as though a very satisfactory
procedure had been worked out. (See Ch. V.)

648 Road improvement was another necessary preliminary to significant village
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group. (1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages (2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole. (3)

A central site was chosen near Ongoho on land belonging to the Akufe'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages. (4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongocata, Ivirua, Sowai, Weki, Ondahari, Ore, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotohoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue. (1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P.A. R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers. (3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superseded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

Production and income

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While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

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Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound. (1)

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Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-.

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Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

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(1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 11]

Table 1

Production of coffee in the Orokaiva area from plantations established under
the Native Plantations Ordinance for ten years 1931 - 40⁽¹⁾

Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Total	Yearly average
Weight (lbs)	9,630	22,652	67,470	60,645	61,425	123,000	127,000	171,585	187,300	163,319	994,036	99,404
Payout ⁽²⁾	170	426	828	558	642	1,280	1,425	1,527	1,863	2,102	10,821	1,082
Pence per lb ⁽³⁾	4.2	4.5	2.9	2.2	2.5	2.5	2.7	2.1	2.4	3.1		2.6

(1) Derived from Territory of Papua reports 1932 - 41.

(2) Net payment to producers in £ Australian.

(3) Calculated to the nearest tenth of a penny.

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6: Crocombe

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Post-war community plantations (1945 - 62)

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[241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with American forces had led them to consider their labour to be worth considerably more than pre-war rates. However the military administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

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466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

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[434] Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.⁽¹⁾ Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

extension staff left, the internal tensions re-asserted themselves.

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots.

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)⁽¹⁾ was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.⁽²⁾ People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system

(1) When the council was formed all village constables were compulsorily retired.

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Satho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning.

operatives they had given them the key to European prosperity.

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses.

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akúte'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary. (1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals.

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- (a) may be distributed in kind by the Government among the villagers ...
- (b) may be sold by the Government on account of the villagers ...
- (c) may be purchased by the Government from the villagers ...

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9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

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Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

- "1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

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Chapter 4

The cash economy

a. Income and expenditure¹

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of \$34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately \$6.60 for the year while expenditure was \$8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of \$328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shot-gun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of \$410 paid out by the 12 householders in this period 22 per cent

¹ Figures given in this section are corrected to the last digit given.

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[525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but inter-village visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost \$22 to members of another village who had already won \$10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from \$60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings (\$10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

[131] In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

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[555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepe as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 454, pp. 107-108--Analyst]

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Table 6
Income of 12 households

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Source	Amount (nearest \$)	Total	Household range	Average
Paid work:				
Labouring	58			
Councillor	30	88	0-32	8
Sale of primary produce:				
Vegetables and tree crops, etc.	28			
Coffee	22			
Rubber	30	80	0-22	6
Social obligations:				
Bride price	78			
Gifts from local kin and affines	38			
Gifts from absent kin and affines	44	160	0-42	14
		<u>328</u>		<u>28</u>
Savings at start of year:				
Individual		198	0-62	16
Contributions to joint accounts		60	0-12	5

245 plots but agricultural officers intended to launch a campaign in
[654] the district in 1963 to induce a wider use of this method which
could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in
the area reaches a peak in the months of the dry season and falls
off after August. Growers are careful to pick only ripe cherries.
They take the cherries in a bag to the river, pulp them by tramp-
ling the bag and then wash them. The beans are placed in hollowed
logs or 'boats', covered with water and fermented for about 36
hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the
Orokaiva Coffee Growers' Society has a buying centre.

435 Not all receipts for sales of coffee from the sample plots had
[434] been kept but the 4 producers stated that their sales of parchment
coffee had brought them a total of £11 in 1962. With the prices
around 1 shilling per pound this would approximate the income
expected from 500 trees bearing a little less than half a pound
annually.

249 (11) Rubber. We shall conclude our descriptive account of
commercial agriculture with a historical resumé of the overall
organisation of the production and marketing of the rubber which
for 40 or 50 years has been grown at Sivepe and throughout most
of this tribal territory. This account seems worthy of inclusion
here, not so much as a report on one of the very few areas in the
Territory where rubber is produced from trees owned by indigenes,
but as a sketch of part of a long and chequered experience of the
cash economy which the mountain Orokaiva have had as primary
producers.

Members of the clans now represented in Sivepe and Binduta
participated in the planting of 4 small stands of rubber (Hevea
brasiliensis) near their villages in the years following World
War I. These plots, known as Binduta, Sarua, Korinasus and
Pusahambo, ranged from less than half an acre to about 3 acres
in area.

The Sivepe neighbourhood at the time was included in the Kokoda
District, a part of the Kumusi Division. By 1918, 8,000 rubber
plants had been distributed to villages in the district which was
considered too far inland for worthwhile copra production. In
1920 the government plantation, established at Kokoda in 1908,
had 12,000 rubber trees on its 125 acres, and villages in 27 sub-
districts had a total of 5,000 trees planted in stands of their
own. Among these were the 4 plots near Sivepe. The growth of the
[245] trees was said to be vigorous. By 1921, 7,000 rubber trees and
4,900 coconuts had been planted throughout the district and by
1922 the numbers had increased to 8,134 and 6,887. In 1924

249 stood untouched for about 20 years. In 1944 Humphries (1944:4)
657 reported that 'the trees grew to maturity with very little atten-
tion from the natives and today they are being tapped for the
first time'.

• [434] In 1941 an agreement under the Transactions with Natives
Ordinance (1893-1935) was made between a European planter
recently arrived in the area and the villages with rubber stands,
whereby he obtained exclusive rights to tap, collect and dispose
of the produce of all the trees, while from 6 per cent to 12 per
cent (according to ruling market prices) of the gross sum obtained
by the lessee was to be paid to the owners every 6 months; in
general this meant that the owners received 1 penny to 3 pence
per pound. The contract was to extend for 5 years and the lessee
was to have the option of renewing it for a further period of 5
years.

The arrangement became effective in 1941 but was interrupted
by the Japanese invasion of the Northern District. In 1943
A.N.G.A.U.¹ authorized the lessee to return to restart production
from the trees. Man (1954:35) says that

[433] during 1944, under the supervision of the rubber division
of the Production Control Board, tapping of some 250 acres
of those smallholdings was organized. During 1945 produc-
tion was over one hundred thousand pounds dry rubber,
indicating average yields of about four hundred pounds per
acre.

249 Various estimates have been made over the last 20 years as to
433 the size and number of the rubber stands in the area. Mann's
311 figure of 250 acres contrasts with the lessee's estimate of 110
acres,² and with Humphries' assessment of about 80 acres. There
were 95 stands with a total of 7,721 trees listed in the 1941
agreement but during 1943-5 a further 42 stands were added so that
most of the available stands were then included in the scheme.³
In 1951 Belshaw claimed that there were roughly 6,000 rubber trees
in the 'Periho' tribal area within what was formerly the Kokoda
District and another estimate about the same time put the number
of trees in this wider area at 10,000. The annual report of 1959
stated that 26,000 trees 'in the Awala area' were tappable. A

¹ The Australian New Guinea Administrative Unit.

² Assuming this estimate and the figure of over 100,000 pounds for
1945 production to be accurate, we must conclude that the average
yields were more than twice those given by Mann.

³ It was reported by patrol staff that 'nearly all' the rubber
stands were being worked from Awala in August-September 1943.

249 recent agricultural census listed 35 stands with 13,700 trees in
433 the Saiho Census Division (which coincides roughly with the 'Periho'
311 area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.¹ There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 The agreement between the lessee and the villagers was modified
657 in 2 ways after the war. When the scheme was resumed in 1943 the
[434] Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;² and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 Until 1946 local villagers were employed by the lessee to tap
[464] their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] The Village Constables had been responsible for seeing that
[623] the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by men other than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.³

¹ These would include self-sown trees.

² There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

³ In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

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[434] A new marketing scheme was devised after 1946. Any villagers who wished to tap their stands were provided with a tapping gouge and spout, anti-coagulate, tressseal and latex bucket by the same European planter. The tapper brought latex to the factory, was given a receipt and paid at the end of the week according to the weight of the dry rubber of the latex brought in. This system brought about a decline in tapping standards resulting in lower net cash returns for the villagers and seems to have been part of the background to their lack of enthusiasm for the lease noted by patrol staff in 1948.

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In mid-1949 a report from the Popondetta District Office stated that all privately owned rubber areas were on the verge of closing down; production costs were high and market prices had fallen considerably.¹ The advent of the 'price-boom' later, caused by the Korean war, coincided with the eruption of Mt Lamington and the evacuation of the villages, and consequent cessation of production.

[435] By 1954 when attempts to organize systematic production were again resumed the market price had dropped to 5/6 d. per pound; the planter proposed to issue daily chits for latex bought and to pay cash at the end of every week. He offered the villagers, and the Administration agreed to, a price of a shilling per pound dry rubber content for all grades of rubber accepted. A system was organised whereby he provided for the transportation of latex by road from collecting points.² He arranged for the tapping of alternate 'sections' every 4 to 5 weeks; the time interval was dependent upon the density of the latex offered. Kongohambo was the collecting point for one 'section' consisting of stands between Kendata and Binduta; Koropata was the collecting point for another section. Only 70 villages were still supplying latex, mainly because of the accessibility. A report on native agriculture in January 1956 noted that villagers had sold 3,600 lb. (dry weight) of rubber for £180 in the previous 6 months. This was produced from only 10 stands 'near Awala' and it was felt that other existing stands would probably not be brought into production until roads were improved. By July 1958 the number of stands had not increased but 6,000 lb. (dry weight) of rubber was produced and sold for £300 in 5 months.

[435] In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

¹ The report seems inaccurate where it says that the fall in price led the lessees to terminate production. In fact production continued.

² Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] The areas of the gardens in which coffee was tried were too small to give satisfying returns.¹ The income of £11 earned by [438] the sample by weeding, processing and marketing their coffee in [245] 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty of rewards is reported to be common in most villages in this area. [245] However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.² Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

¹ The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

² Figures from 1964 census, District Agricultural Office.

714 not necessarily leaders in the old authority structure but often
177 people with particular experience of white rule (e.g., policemen).¹
179 Both cults were suppressed by the Administration although the Taro
cult persisted until 1928 and possibly reappeared in the Gona-Buna
area in 1961 (Worsley 1957:124), concurrent with rumours of imminent
Japanese landings.

178 The ending of inter-tribal skirmishing, which directly affected
657 the social roles of the sexes, also extended the physical range of
36 interactions open to individuals and resulted in the proliferation
[72] of hamlet groups, comprising single clan-branches, i.e. a fragmenta-
tion of the main villages. Administrative efforts in this period
were directed towards countering this latter process and concentrat-
ing settlements along the roads to facilitate supervision, encouraging
improved building styles (particularly the erection of houses on
stilts above the ground) and establishing more ordered 'line'
villages built around a central square.

(b) Commencement of cash cropping

24 From its beginnings the mainstay of government policy was the
[657] encouragement of indigenous cash cropping. Regulations introduced
in 1894 and 1903 provided for compulsory plantings of economic
trees, particularly coconuts, rubber and citrus, but few were ex-
ploited commercially. Under the Native Plantations Ordinance 1918
and the Native Plantations Ordinances 1925-32, twenty-six community
plantations were established in the Orokaiva area with both govern-
ment and villagers participating.² Cocoa, coffee, oil palm, cotton,
tobacco and rice were all tried; however, owing to a fall in prices,
[426] all but coffee were abandoned. According to Crocombe (1964:16),
[434] there was no enthusiasm among the people for the scheme as they
considered the cash returns inadequate: each man was required to
work sixty full days per year and returns varied from less than \$1
to \$8 per year, which was well below the returns from working on
European plantations at that time. Some 10,000 trees, predominantly
coconut, were planted in 1914-15 in the Orokaiva area and by 1921
it was estimated that there were 46,404 coconut trees in the Northern
Division and some 7,000 rubber trees (mostly in the Awala area).
[433] The planting of coffee commenced in 1923 and by 1936 there were

¹ Such a development may well also have been characterised by the
building up of more extensive group solidarities. Burridge
(1960:25) does suggest, however, that the Taro cult may have been
a particular expression of a similar type of cult occurring in the
pre-contact era.

² Proceeds deriving from the sale of the crops were shared on a
50-50 basis. For a detailed treatment of these communal plantings
see Crocombe 1964.

454 considerable interest was shown, more than \$14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASV and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

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(438) Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.¹ The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,² and only
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(433) a limited quantity is required, there is little incentive for the villager to increase production.

(24) In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 (f) Conclusions

(464) In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

● (434) ¹ Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

(437) ² Bartered at this rate in salt, tobacco, razor blades and kerosene.

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[437] consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

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[443] The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

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[571] (1) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the trees are self-sown. As well as lacking maintenance, in most cases

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438 are supplied by villages within two or three miles of the township
435 whereas the meat and fish may come from much further afield, since
their weight/value ratios are much higher than for vegetables. One
pound of pigmeat sells for 10c - the price of four taros averaging
eight pounds weight. Prices in the markets are standardised and
[434] not dependent on supply or demand. Those who sell meat or fish can
earn worthwhile sums, since a wallaby may fetch \$4 but, in general,
marketing is a significant source of income only for people from
the less densely-settled areas or the coast where fish or wild game
are plentiful.

461 (iii) Wage employment. Several categories of wage employment
are available to villagers from time to time. The construction of
new all-weather roads within the sub-district has recently increased
the opportunities for temporary employment as unskilled labour.

The Administration frequently makes contracts for the supply of
timber or the erection of buildings from local materials and both
Sivepe and Inonda profited by these during the survey period. The
contract may be made with an individual, who pays the others from
the proceeds, or a group.

There are some opportunities for casual employment on plantations,
but most planters prefer to employ workers from outside the Orokaiva
area because they are less likely to be simultaneously involved in
subsistence tasks and traditional obligations. Moreover, such work
[461] is not popular with the Orokaiva, who prefer to work for relatives
holding blocks under the ex-servicemen's settlement scheme at
Sangara, Isavene or Girua. Individuals or whole families may stay
with relatives or friends in this way, sometimes for several months.
[465] No formal agreement is entered into and the villagers may work only
intermittently, in return for their keep and, at the end, a sum of
money and additional payment in kind (tinned meat, rice, sugar,
etc.). In some cases, however, regular payment is made at the
official casual rate of \$3 a week. Work of this kind is popular
and during the survey there was almost always at least one person
temporarily absent from Sivepe visiting or working for settlers.
At Inonda, it was possible to work for settlers on the Girua blocks
while resident in the village.

[467] Anglican mission stations frequently employ school-leavers as
[465] 'medical orderlies' and 'nurses' in their clinics and hospitals.
Standard IV or V education is required but the salary is normally
only \$1 a month and few adults are involved.

[491] ¹ This applied to villages between Popondetta and Inonda when the
road to Oro Bay was improved in 1963-64, and in 1964 work began on
the realignment and improvement of the Popondetta-Kokoda road,
which passes through Saiho census division within three miles of
Sivepe.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

166 (iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.¹ Those in employment almost invariably see themselves as being only temporarily absent from their villages² and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

431 Single remittances are frequently of the order of \$10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include 434 rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have 438 shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.³ A winner is usually expected to return some of his gains to

¹ Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[762] ² Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

³ A Hohota man won \$60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning \$86 from plantation labourers.

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(577) man-hours, to be a costly failure.¹ During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

361 Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.² However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

244 The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 13 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

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(d) Monetary assets

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Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

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The monetary assets of 11 households at the end of the survey amounted to \$208.60 (see Table 4:5), 26.9 per cent (\$56.10) in cash

¹ It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

² See pp.34 and 37.^A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Pepondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

- 434 and the remainder in either shares or savings accounts. Four of the eleven households had no monetary assets at this time, while 454 six had no cash in hand.¹

Table 4:5

Sivepe: monetary assets of households, January 1965
(£)

Household no.	Cash	Savings bank	Shares OCGS	Oro Ltd	Clan savings account	Total
1	24.00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

- 454 Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies, the OCGS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCGS declared a dividend of 5 per cent.

- 614 Two members of Timumu clan had contributed to a clan savings account which was supported mainly by clansmen in another village, Soroputa. In 1964 it was decided to use the funds to establish a trade store in that village. Even if implemented it is doubtful whether this store would be profitable, since Steamships Trading

¹ Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.¹

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464
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¹ See pp.44-5. ²

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he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Iemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

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[226]
Iemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 30 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

● [434]
Iemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold siporo (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for \$4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883]
[716]
Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. A closely related activity is church attendance, which occupies over an hour a week because Iemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

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[461] holdings - his father's coffee plantation of over 100 trees was given to the eldest son - but intends to plant both coconuts and coffee. He sees cultivation of cash crops as preferable to working away from the village since the former guarantees a continuing minimum income, but he believes that paid employment while resident in the village is the best source of cash. After the end of the survey Paulus, Lawrence and two others obtained work in Popondetta, returning home each night. Despite his lack of formal education and holdings of cash crops, Paulus is generally recognized as second in status to the leading man, and when the leader refused to be nominated for re-election as local government councillor, he was asked instead. He was prepared to stand, but eventually declined because of his wife's disapproval. When Lawrence proposed individual working of copra it was Paulus who insisted, successfully, that it should be communal, on the grounds that the others had insufficient palms to make individual working worthwhile. However, having gained his point, he was prepared to leave the sale of copra and the operation of the village savings account to the leader.

[461] On average, Paulus is active for more time per week than any other villager and over 80 per cent of his time is spent on directly productive tasks. He is recognized as the most accomplished hunter in the village as well as being skilled at fishing and, together with sago-making, these food-producing activities account for almost one-third of his activity time. He frequently borrows a shotgun from Lawrence or from kin living nearby and from August onwards often took smoked meat or fish to market in Popondetta. As he has no cash crops his main sources of income are paid work, marketing and gambling, but only paid work consumes more than an average of one hour a week. Apart from the contract work, this includes work on the bridge over the Girua River during the first three weeks of the survey.

[462] Although he spends more time on subsistence gardening than the cash croppers discussed above, Paulus spends much less in this work than the other non-cash croppers. Most time is spent in clearing and in planting and maintaining taro. He is one of the few with a significant number of yam vines, the crop occupying as much of his time as sweet potato cultivation. As is usual for men, harvesting consumes little time, except for sugar-cane and coconuts.

The only other subsistence activity that accounts for a noteworthy proportion of Paulus' time is construction. Although much of this was, in fact, on the copra-drier, he spent

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

432 (b) Monetary sector

438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivepe and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Awaia to receive payment for coffee previously delivered.

• [434] (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.

¹ But see p.203.

438 (iv) Storebought goods. Storebought goods account for 81 per
439 cent of monetary acquisitions. Most originate from the external
sector (trade stores) although alcoholic drinks together with a
small quantity of food comprise purchases from other subsistence
villagers at 'parties'. Only one instance of a disposal was re-
corded - a woman making a skirt at a mothers' union sewing class
and selling it to another for the price of the materials.

Forty-six per cent of all purchases comprises foodstuffs and a
further 9 per cent stimulants. Some of these can be considered
luxuries in that they are largely superfluous to requirements.
However, many dry season purchases, of rice in particular, are
made specifically to supplement supplies from the subsistence
sector.

The remaining 45 per cent of purchases consists of household and
personal goods and equipment. Most of these are more basic to the
economy: either their greater efficiency or durability has led to
the elimination of traditional counterparts (as in the case of
cooking utensils, axes and clothing), or they represent important
technical innovations (as in the use of torches and guns for
hunting).

434 (c) Cash

According to cash transactions effected during the survey, in-
comes amount to 40c per man-week or \$21.02 per man-year, but 8.4
per cent of this amount originated from the researchers. If money
from this source and bank transfers are excluded, a credit balance
of \$20.76 or a total income of \$247.98 is recorded (see Table 10:3).
Thus in a 'normal' year an adult's income would amount to \$18.19
with a credit balance at the end of 74c, that is, he might save 4.1
per cent of his earnings. On account of the researcher's presence
16.9 per cent of earnings was saved in 1964. The majority enters,
almost immediately, into circulation through either the gift ex-
change or the monetary system.

Table 10:3

Siwepe: acquisition and disposal of cash over the whole
survey period
(£)

	Acquisition	Disposal
Total	273.68	239.22
Including:		
Savings bank transfers	-	12.00
Transactions with researchers	25.70	-

434 Excluding the researchers' contribution to total income only 39 per cent is derived from the sale of cash crops and subsistence produce, the bulk entering instead through the gift exchange system, largely in the form of remittances. By contrast, excluding bank deposits, 63 per cent of disposals takes place in the monetary system, principally as purchases of storebought goods, only a minority being distributed as gifts. In effect, therefore, the gift exchange system serves as the principal mechanism for the acquisition of cash, but only a minor part entering in this way is so distributed, income being used rather to purchase goods unavailable in the subsistence sector of the economy.

Seasonal variations in exchange patterns

438 (1) Subsistence produce (see Table 10:4 and Fig.10:2). Although no net movements of subsistence produce in or out of the sample are identifiable, other than those directed to the researchers, transactions do reflect the temporal pattern of availability of particular goods. Three broad categories are identifiable - continuous, seasonal and periodic. Of the main cultivated plants only the circulation of sweet potato is maintained at a constant level throughout the year, as it is more tolerant of dry conditions than the staple, taro. However, in terms of diet, its role is not important and in only two weeks did it constitute the major item of exchange.

[262] During periods I and III taro predominates in transactions comprising 37 per cent and 32 per cent respectively of the total volume, but with the annual fall in production in the dry season it declines to 11 per cent, and breadfruit and sago replace it as the main exchange items with 35 per cent and 17 per cent respectively. The production and distribution of these latter crops is almost entirely restricted to the dry season when they constitute the major part of the diet. The peak in breadfruit exchanges precedes that of sago, this being a reflection of both food preference and labour productivity. Only after the supply of the former has been largely exhausted is the labour intensive work of sago extraction resorted to.

Among the Orokaiva, as elsewhere in New Guinea, meat, in particular pig, provides the classic example of goods only periodically available. Although most pigs are exchanged ritually prior to consumption, the fact that a specific quantity of meat may change hands several times, commonly by a process of subdivision and partial redistribution, precludes any meaningful estimation of the level of consumption. It is nevertheless worth noting that on twelve weeks no transactions were effected and on only six did the total volume exceed 100 lbs. On two of the latter six weeks pig was the major exchange item, on a third the volume was only marginally exceeded by that of taro, while on all three weeks it accounted for more than one-third of all transactions.

Table 10:6

Sivape: the type and volume of labour services transacted
during each recording period
 (hours)

Activity	Period					
	I		II		III	
	hrs	%	hrs	%	hrs	%
1. Subsistence						
Clearing	67.8	8	61.8	7	35.9	7
Taro - plant	21.8	3	39.6	5	16.9	3
maintain	-	-	16.7	2	14.8	3
harvest	10.6	1	17.2	2	-	-
Yam - harvest	128.9	15	-	-	90.3	17
Coconuts - harvest	3.9	-	17.2	2	16.4	3
Sago-making	-	-	489.2	56	30.6	6
Hunting	-	-	36.5	4	31.2	6
Construction	328.1	38	152.9	17	21.6	4
Pig-carrying, butchering, etc.	32.2	4	8.0	1	136.2	26
Food-carrying	-	-	-	-	76.6	15
Miscellaneous	2.6	-	19.5	2	57.7	11
Sub-total: subsistence	595.9	69	859.6	98	528.2	101
2. Cash						
Coffee - harvest	54.4	8	-	-	-	-
process	205.1	24	3.3	-	-	-
Rubber - market	8.0	<1	-	-	-	-
Errand-running	6.3	<1	16.0	2	-	-
Sub-total: cash	273.8	32	19.3	2	-	-
Total	869.7	101	878.9	100	528.2	101

The exchange of labour services in the cash sector is significant only during period I. Associated almost entirely with the harvesting and processing of coffee, in themselves strictly seasonal activities, they account for 32 per cent of transactions, while, as a single activity, coffee processing is exceeded only by construction in the volume of labour services utilised. On account of the urgency associated with the processing of coffee, the circumstances in which assistance is rendered are essentially the same as for subsistence activities.

(iii) Cash crops. All sales of coffee were restricted to period II (following intensive production during the latter part of period I) when a mean weekly income of \$9.72 was derived from them. Rubber sales were made in periods I and III when mean weekly returns of 33c and \$1.11 respectively were obtained. In fact the pattern

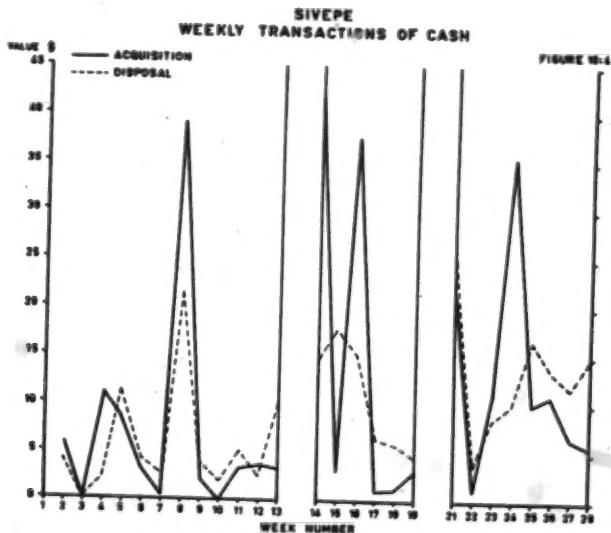
(v) Cash (Table 10:8 and Fig.10:4). The mean amount of cash acquired per week is greatest during period II when the main coffee sales are effected. However, since remittances were a major source of income, and these are received in a completely random manner, the weekly variations are far greater than the seasonal ones.

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Table 10:8

Sivepe: mean weekly transactions of cash during each recording period
(£)

		Period		
		I	II	III
Cash	Acquisition	6.80	15.05	12.87
	Disposal	6.04	10.68	13.13



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For example, during period II the sample's income ranged from \$1 in one week to almost \$50 in another. Since the turnover of cash is rapid and little capital formation takes place, the pattern of expenditure closely parallels income, and exceeds it in the latter part of period III when the substantial demand for storebought foods for ceremonial activities is met primarily with savings accumulated earlier in the year. These major fluctuations in the acquisition of cash demonstrate the danger of villagers placing any great dependence on it at this stage of commercialisation of the economy.

The exchange patterns of households

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Both the volume and variety of transactions vary considerably from one household to another, and can be related to specific differences in the resource base of each (see Table 10:9). Thus, there is a distinct movement of labour services within the cash sector from non-cash cropping to cash cropping households, of cash crops from the latter, of the produce of hunting from householders with direct access to shotguns (households 3 and 15), of cash to cash cropping households, and of storebought goods to those households with the highest incomes.

[555]

Cash croppers exhibit a much higher volume of transactions than non-cash croppers in all categories apart from subsistence labour services. As suggested by the figures for subsistence produce, this applies equally to transactions in the gift and in the monetary exchange system. As in activity patterns so with exchange: cash croppers evidence a high level of participation in the traditional village economy. That is, cash croppers are industrious in work and generous in distribution, two qualities which generate respect and status both traditionally and in contemporary Orokaiva society.

The lower rate of disposal of subsistence labour services by cash croppers may be indicative of the greater premium they place on time and a preference for exchanging goods more abundantly available to them but, apart from in the processing of cash crops, there is little evidence that they exploit the system by drawing on unutilised labour from other households. However, it is worth noting that household 15, whose head is the most active male in the sample, does record a high incidence of such exchanges of labour, in particular of acquisitions.

Not only do particular households play an important part in regulating the flow of specific categories of goods, especially the scarce ones of cash, pigs and game, but there are broad variations between households in their general involvement in the exchange system. The bulk of domestic pig is handled by four households (1, 2, 13 and 14), with only very small amounts being distributed or redistributed to others. Some of the households headed by older people (6, 10 and 11) or which are only recently

592 established in the village (4 and 7) scarcely participate at all
 437 unless they make specific efforts to obligate others to them or to
 settle existing obligations, as with 6 having a sago palm felled
 and 7 assisting his affines in subsistence tasks on numerous
 occasions.

[43] The network of inter-household exchanges of these scarce goods
 and of services, even at the level of co-residents and close kin,
 suggests the system to be primarily a negotiated and exploitative
 one with the ideal of communal interests and group security relegated
 to a subsidiary role. This dual aspect of exchange is exemplified
 in a statement of intentions made by the head of household 18 above,
 in distributing some sago, he proposed to make large gifts to three
 people 'because they are always quick to help me when I am in need
 of food' but smaller gifts would be made to others since 'it
 would be an insult not to share with other people when they see I
 have plenty of sago'. In fact the security with which older people
 are provided is of a low order if the volume of exchanges with
 others is considered.

Income and expenditure of cash over 46.5 weeks

434 The level of the Sivepe people's commitment to the external
 sector of the economy is demonstrated by their income and expendi-
 ture patterns. All households handled some money during the period
 from February 1964 to January 1965 and even household 4 which
 registered a gross income of only 50c during the period it was
 present, left the village with the specific object of seeking wage
 employment on a Sangara plantation (see Table 10:10). Cash croppers
 handle substantially more money than non-cash croppers but this
 fact is not simply a function of the agricultural activities of the
 former. There are several important avenues available for the
 acquisition of money, and commitment to cash does not imply any
 parallel commitment to cash cropping.

As the single most important source of income, remittances rank
 with proceeds from the sale of cash crops and, for cash croppers,
 these two provide their main sources of cash. By contrast non-cash
 croppers derive over half of their income primarily from Sangara
 settlers and secondarily from other villagers¹ (see Table 10:11).

[43] The value of connections with wage earners and Sangara settlers
 is enhanced by the gifts of goods frequently associated with the

¹ Some money is also obtained directly from the sale of cash crops.
 Two cases were recorded of quantities of coffee being given to non-
 cash croppers in acknowledgement of assistance rendered; while in
 a third a young member of a non-cash cropping household emulated
 his brother in exploiting the communal rubber planting.

434 money received from them. As demonstrated in Table 10:15, such
431 people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received \$20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received \$1 in cash and at the end a further \$2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total.

[432] Non-cash croppers have less money available but utilise it in much the same manner - in effecting what are largely necessary exchanges with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about \$10, the cash croppers a debit of about \$15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the farmer to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others, while, of the five households with the highest incomes, the heads of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of \$2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

Table 10:10

Sivepe: cash income and expenditure over 46.5 weeks, by
household
 (\$)

Household	Income	Expenditure	Net change to cash balances
1	95.99	63.80	32.19
2	78.57	61.00	17.57
3	79.92	60.49	19.43
4*	0.50	-	0.50
5	42.87	36.44	6.43
6	3.50	2.10	1.40
7**	12.50	12.30	0.20
8	11.75	10.62	1.13
9	62.35	60.29	2.06
10	17.50	5.80	11.70
11	30.90	21.83	9.07
12***	2.15	3.68	-1.53
13	58.75	45.49	13.26
14	21.98	16.63	5.35
15	77.08	67.82	9.26
Total	596.31	468.29	128.02
Mean per week:			
All households	0.99	0.78	0.21
Cash croppers	1.52	1.21	0.31
Non-cash croppers	0.36	0.26	0.10

* Surveyed for 6.5 weeks only.

** Surveyed for 27.5 weeks only.

*** Surveyed for 11.5 weeks only.

454 households, were recorded and each followed the receipt of a substantial gift or payment of cash. In the case of the first household, the head received a remittance of \$12 in March from a brother and he immediately purchased shares to the value of \$10 in Oro Ltd; in December he received another remittance of \$10 from his sister's husband and immediately deposited \$6 in his savings account, while a week later he received \$10 from the husband of another sister and his wife deposited an additional \$6 in the savings account. The head of the second household sold coffee to the value of \$25.75 in July, depositing \$10 of it in a clan savings account. The two households registered the second and fourth highest incomes respectively.

The irregularity of cash income, and therefore the need to hold cash against expected requirements, is undoubtedly an important factor in this apparent failure to accumulate capital. However, this consideration apart, it can be variously interpreted as, one, the inadequacy of income in relation to immediate requirements and demands from the monetary sector, two, a belief that there is no

Table 10:11

Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
Number of adults	19		16		35	
Man-weeks surveyed	751.5		509.5		1,261.0	
	\$	%	\$	%	\$	%
<u>Sources of income</u>						
Cash crops	174.95	35	15.00	15	189.95	32
OCGS dividend	5.40	1	-	-	5.40	1
Paid employment*	18.90	4	2.25	2	21.15	4
Remittances**	162.50	33	3.80	4	166.30	28
Gifts and payments from Sangara settlers	0.40	-	33.60	33	34.00	6
Subsistence produce: marketing, hawking and casual sales	16.50	3	10.75	11	27.25	5
Sales to Administration	7.80	2	3.45	3	11.25	2
Gifts, loans and payments from villagers	47.05	9	25.40	25	72.45	12
Researchgate	62.03	13	6.53	6	68.56	11
Total	495.53	100	100.78	99	596.31	100
Mean per man-week	0.66		0.20		0.47	
<u>Directions of expenditure</u>						
Trade store purchases	189.91	48	38.82	53	228.73	49
Mission (Mothers' Union) purchases	4.35	1	4.10	6	8.45	2
Marketing, hawking and casual sales	18.08	5	2.60	4	20.68	4
Fares, travel	12.00	3	0.50	1	12.50	3
Bank deposits/shares	32.00	8	-	-	32.00	7
Administrative agencies	4.00	1	-	-	4.00	1
Mission offerings	45.09	11	2.60	4	47.69	10
Local Government Council tax	28.00	7	14.00	19	42.00	9
Gifts, loans and payments to villagers	57.90	15	10.34	14	68.24	15
Gambling losses	4.00	1	-	-	4.00	1
Total	395.33	100	72.96	101	468.29	101
Mean per man-week	0.53		0.14		0.37	

* Including local government Councillor's salary.

** Including gifts from wage earners in District.

178 there are those indigenes who have moved temporarily or permanently
166 away from the village economy - to take up blocks of land as ex-servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and
● [434] still being developed. The settlers remain therefore partly subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home villages. Most of those working within the District are employed on a casual basis for salaries of less than \$4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning \$9.35 and \$8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

[438] The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

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The major part is received from Inonda people but a significant proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above¹ between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

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(iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
(9)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

¹ Page 235.

Table 11:12

Inonda: cash income during the whole survey period and rank of households

Household	Rank	Income in \$
23	1	147.72
20	2	41.44
24	3	41.30
21	3	39.40
16	4	38.50
17	4	16.40
22	4	10.60
19	2	1.50
18	4	0.50

and his generosity with his main resource, labour. Household 16 is grouped in the lowest rank although its income level is in the same order as people in the second and third ranks. A further complication is that household 24, though accorded a relatively high rank, has a comparatively low rate of expenditure, particularly in the form of gifts of either cash or storebought foods. Allowing for these factors, however, it seems that the qualities that gain respect for an individual within the traditional village sphere of operation also tend to be those that encourage the acquisition of cash.

Income and expenditure of cash over 47 weeks

The figures in Table 11:13 represent current income from all sources, including withdrawals from savings accounts and all expenditure, including deposits in savings accounts. Unlike the data for other items of exchange, details of income and expenditure of cash were collected not only for the three recording periods but also for the intervening weeks. Although this subsidiary data may be rather less accurate than the rest, it has been taken into consideration in some of the tables below and thus provides a record of cash transactions over 11 months, from February 1964 to January 1965.

Table 11:13 shows the total income and expenditure of cash per household over 11 months, including the coffee season, and reveals that there is a net inflow of cash amounting to \$72.96 for the village as a whole or \$8.12 per household. In fact, however, both income and expenditure vary widely between households. Also, the income of households 16, 21 and 23 includes withdrawals from savings accounts and the expenditure of household 23 includes a deposit in his account. Household 23 has the highest income with \$235.42, which is 43 per cent of the total for all 9 households, but its expenditure

Table 11:13

Inonda: cash income and expenditure over 47 weeks, by household
(£)

Household	Income	Expenditure	Net change to cash balances
16	78.62	73.84	4.78
17	26.38	24.20	2.18
18	4.30	4.90	-0.60
19	1.70	2.50	-0.80
20	66.94	64.12	2.82
21	48.60	41.56	7.04
22*	10.60	14.64	-4.04
23	235.42	230.38	5.04
24	76.90	20.36	56.54
Total	549.46	476.50	72.96
Mean per household	61.06	52.94	8.12

* Figures for February 1964 to May 1964 only.

is also highest. Income and expenditure by household 23 related to the trade store are not included in these figures. During the period, income from the store amounted to \$185.20 and expenditure on supplies, at wholesale prices, to \$177.58; most of this expenditure was for goods purchased on credit in the first few months of operation.

The trade store began operating on 25 October 1963. Up to 3 January 1965, total payments for supplies were \$264.50 and total income from sales was \$368.78, giving a gross profit of \$104.28.¹ Deduction of \$6 for a trading licence yields a profit of \$98.28, at a rate of \$7.02 per month. This rate is little more than half that earned through casual labour, but the returns per hour are very much higher (see Table 13.2), since operation of the store did not consume a very large proportion of the working day (except for journeys to Popondetta to collect supplies). Over the survey period, the average time spent daily on the store was little over one hour. The owner thus had considerable time available for other tasks, which is not true of those engaged in wage labour. Judging by the comments of the managing director of Oro Limited,² he is quite successful by the standards of Orokaiva-owned stores. For a period, early in 1964,

¹ Stocks remaining at 3 January 1965 were small and, in the researcher's opinion, almost worthless. They have, therefore, been written off for the purposes of this account.

² Personal communication.

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444 It was not only the closest store for some 100 people, but it was also regularly patronised by passers-by and labourers on the main road.¹ For this reason, during the first 13 weeks of the survey sales averaged \$10.70 a week, but over the whole period, from February 1964 to January 1965, the average was only \$4.20.

472 The head of household 23 engaged in a number of other profitable entrepreneurial activities during the survey and the income from these is included in Table 11:13. He received \$42 for organising the construction of the researchers' house; this sum was immediately used in the purchase of a shotgun. During period III, the same man organised a labour gang of fellow villagers to construct a shelter at the airstrip on contract from the Administration. For this, he received \$72, of which he paid \$36 to the other six men. At other times during the year, he received \$20 for hardwood trees sold to the Administration, \$4 for interpreting at polling booths during the House of Assembly elections and \$10 from the Electricity Commission for locating steel pipes and oxy-acetylene cylinders abandoned in the grasslands after the war. (Two other men found and carried the pipes to the road at the entrepreneur's suggestion. They received \$3 each and he received \$8!) In addition to these sources not open to people with less experience and self-confidence, the same man acquired significant sums from sales of meat, coffee and copra and from gambling. Two fellow villagers gave \$2 each and another gave coffee worth \$3.32 as contributions towards the purchase of his shotgun. The wife's contribution to the household income was comparatively small at \$6.90, of which \$4 comprised remittances from kinsmen in Port Moresby.

511 About 62 per cent of this household's expenditure was in retail purchases from trade stores - one-third of this figure being represented by the shotgun and the rest mostly by food and clothing. The bulk of the other expenditure was in payments to the villagers who formed the labour gang. Eight dollars was spent on gun and trading licences and \$2 on a fine for taking sago leaves without the owner's permission. Only about \$12 (5 per cent) was disposed of in gifts to relatives. Overall, income exceeded expenditure by only \$5.04, more than \$3 below the village mean.

434 Household 24 has the greatest excess of income over expenditure with \$56.54. Its gross income was \$76.90, of which \$32 were remittances from kin working outside the district, \$10 was a teacher's pension from the Anglican mission and \$10 was a belated payment from the Administration as a share of rice sales by Hohorita village co-operative society in 1949 and 1950. Seventy per cent of the household's expenditure was in trade stores and almost 10 per cent was in casual purchases from hawkers. The surplus cash was not

¹ See p.61.

deposited in the savings account but was kept as cash-in-hand. None of the household's expenditure was in the form of gifts; most was in impersonal transactions and the rest in commercial exchanges with village people. 511

Household 16 has a slightly higher income than household 24, but three times the expenditure, so that its excess of income over expenditure at January 1965 was only \$4.78. The main sources of income were sales of coffee, marketing and labouring. The wife's mother received 10 per cent of the household income in the form of gifts from close kin. 434

Household 20 also has a comparatively high level of income and expenditure and an excess of income of only \$2.82. Just over one-half was from gambling and a further one-sixth from marketing; this household has no cash crops.

Household 21, which is establishing coffee but derived no income from cash crops, has a gross income of \$48.60 and an excess over expenditure of \$7.04, which was the second highest in the village. This was derived from a wider range of sources and was more evenly distributed among them than the income of most other households. Over one-fifth was received in gifts, mostly from the wife's relatives, many of whom are wage earners.

Household 17 owns 107 coffee trees but sales of coffee were less important as a source of its income than labouring, even though labouring on the main road occupied only one week early in the survey and labouring on the contract gang ten days during December. Expenditure by households 16, 17, 20 and 21 was mostly on tax payment and store purchases, but 17 per cent of the expenditure of household 20 and 5 per cent of household 21 comprised gambling losses. (511) (525)

The remaining three households had a low level of income and an excess of expenditure for the eleven months. Household 18 received its entire income as gifts from wage earners and fellow villagers, as did household 13 apart from a small sum from the researchers. Expenditure was exclusively in purchasing, but the widower (household 19) lost \$1 while washing his clothes in a stream. Household 21 was present for only the first 13 weeks of the survey. Its income was derived from labouring for a settler on the Girua block and from sales of subsistence produce to villagers. Expenditure, which exceeded income by \$4.04, was mostly in trade store purchases. The household head did not pay the council tax and was later jailed for three months. After leaving Inonda, he continued to work occasionally for settlers but no details of his income were collected.

The majority of cash transactions are with organisations: this applies to expenditure even more than to income. Many of the transactions with villagers represent payments for specific goods and services that are usually related to the cash sector, such as 437 434 511

511 assistance in picking coffee, rather than to the traditional network of exchange. The relative significance of the different sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

434 It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

[431] Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCGS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the entrepreneur account for 19 per cent of total village income. Some \$43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

[525] Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the \$16.50 received by cash croppers from wage earners within the District, \$14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

Table 11:14

Inonda: patterns of income and expenditure over 47 weeks,
by cash cropping status

No. of adults	Cash croppers		Non-cash croppers		Total	
	11	10	10	10	21	21
	\$	%	\$	%	\$	%
<u>Sources of income</u>						
Cash crops	46.60	12	-	-	46.60	9
OCCS dividend	5.60	1	-	-	5.60	1
Subsistence produce: marketing, hawking and casual sales	45.64	12	16.30	10	61.94	11
Withdrawals from savings	26.00	7	-	-	26.00	5
Paid employment	29.40	8	26.40	17	55.80	10
Contracting and sales to Administration	106.00	27	-	-	106.00	19
Mission pension	-	-	10.00	6	10.00	2
Remittances	4.00	1	36.00	22	40.00	7
Gifts from wage earners in District	16.50	4	18.80	12	35.30	6
Other gifts, loans, and payments	48.82	13	18.50	12	67.32	12
Gambling winnings	12.26	3	34.04	21	46.30	8
Researchers	48.20	12	0.40	-	48.60	9
Total	389.02	100	160.44	100	549.46	99
Mean	35.37		16.04		26.16	
<u>Directions of expenditure</u>						
Trade store purchases	223.52	60	62.08	58	285.60	60
Market and hawkers	2.80	1	7.14	7	9.94	2
Deposits in savings accounts	16.00	4	-	-	16.00	3
Payment of labour	36.00	10	-	-	36.00	8
Local government council tax	36.00	10	8.00	7	44.00	9
Gambling losses	3.50	1	13.50	13	17.00	4
Administrative agencies	11.20	3	-	-	11.20	2
Gifts, loans, repayments and loss	28.60	8	14.70	14	43.30	9
Other payments for services	1.42	-	0.10	-	1.52	-
Researchers	10.94	3	1.00	1	11.94	3
Total	369.98	100	106.52	100	476.50	100
Mean	33.63		10.65		22.69	

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438 exclusive. Representatives of the external agencies were, for this purpose, grouped in a single category as 'organisations' (for example, the local government council, the army, the markets and trade stores). The term 'subsistence villager' includes those growing cash crops.

Table 11:18 shows how transactions of each category of goods and services are distributed among partners according to their occupational category. Items which deviate significantly (in most cases between 10 and 15 per cent) from the mean for their respective categories are shown separately.

As might be expected, the dominant position of villagers in exchanges of subsistence items is clear. For several items they account for 100 per cent of the total, although in the case of Xanthosoma only 34 per cent was acquired from this source. One household received several large gifts of the tuber from a New Guinea plantation labourer it had befriended, while some was also purchased at Popondetta market. Other noteworthy deviations include fish and game where significant quantities were sold at the market or given to settlers. In fact 34 per cent of the subsistence produce disposed to settlers comprised pigmeat, due, specifically, to a villager hunting on behalf of a relative on two occasions.

439 In contrast to the subsistence items, only a minority of non-traditional acquisitions is from villagers. Disposals of such items are smaller than acquisitions and only in a few cases - rice, tinned fish and clothing - is the total value above \$6. Most disposals, particularly of food, are to other villagers. Most (over two-thirds) of the non-traditional items are acquired from trade stores (organisations). However, other people make significant contributions of some items: wage earners provide over half the alcoholic drinks, half the salt and considerable proportions of the rice, tinned fish and meat, and cigarettes, while the settlers are also a minor source of foodstuffs. The villagers clearly derive considerable benefit from the continued operation of the gift exchange system with these people, but most particularly with the wage earners who participate more fully in the monetary economy than settlers.

437 As regards labour services, almost all acquisitions are from subsistence villagers. Disposals in the subsistence sector naturally go largely to other villages although some help is given to settlers. In the cash sector, one-fifth of the labour services goes to settlers but none is received from them.

437 Most cash transactions are effected with organisations (32 per cent of acquisitions and 77 per cent of disposals) but exchanges with other villagers are of secondary importance. Settlers and wage earners also play an important role as sources of cash. The largest item in transactions between villagers consisted of \$36 paid out by the entrepreneur to the six men who worked for him on

437 the construction contract. Most of the rest was exchanged as gifts
 434 or loans. Nine dollars was received from settlers as wages, the
 rest as gifts or loans. Most of the money received from wage
 earners was in the form of gifts from kin or friends, but a small
 amount was acquired early in the survey by the sale of coconuts and
 bananas to road-workers. Gambling winnings accounted for half the
 money received from settlers, and wages a further 25 per cent. A
 total of \$12 was received by two people in remittances from a kins-
 man working in Madang. Acquisitions of cash from organisations are
 mostly in the form of payments by the Administration for goods and
 contracts, wages from the road-construction company and receipts
 from marketing, while disposals consist mostly of payments to trade
 stores and council tax.

432 In summary, it may be said that the bulk of exchanges of subsist-
 ence produce are with other villagers, except for sales of certain
 items at market and generally small exchanges with settlers retain-
 ing firm links with their village-based kin. Transactions of cash
 and storebought items are largely confined to organisations, other
 villagers and wage earners in the Popondetta sub-district. Labour
 services are almost wholly with other villagers, apart from a little
 assistance given to settlers.

438 The geographical dimensions of exchange (see Maps 2 and 5)
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(1) Subsistence produce. Tables 11:19-24 show the locations of
 partners (whether people or organisations) with whom Inonda people
 engaged in transactions during the survey. Most are villages, but
 they also include plantations, settlement blocks, mission stations
 and isolated trade stores. Tables 11:19 and 11:20 present the
 information for transactions of subsistence produce and reveal that
 almost two-thirds of acquisitions come from within the village it-
 self and a further 25 per cent from people living within a radius
 of two miles. Seventy-one per cent of the disposals are to Inonda
 villagers and a further 18 per cent to people within two miles'
 radius. People or organisations (particularly the market) at a
 distance of five miles or more account for 11 per cent of both
 acquisitions and disposals. The distribution reflects primarily
 the closeness of contacts with kin, most of whom (apart from
 affines) live within two miles of the village at Ajoro (which
 moved its site during the survey and changed its name to Hahemo),
 Ijika, Mosou and the Girua settlement block. The relationship with
 the road construction workers' camp at Evundo followed the marriage
 of an Inonda girl to a New Guinean labourer. Links with places at
 a greater distance are also almost exclusively based on kinship.
 Several households have consanguineal ties with Sewa and Urio vil-
 lages; two households in particular maintain close contacts with
 relatives in Ururu, Popondetta and Hohorita and another household
 with the wife's kin at Sangara plantation and in Kendata village

[TEXT CONTINUED ON PAGE 272]

431 people, however, are almost entirely in the gift exchange system and conform more closely to the pattern of disposals of garden and forest produce. They include the sale of copra to the co-operative society at Oro Bay.

437 (iv) Cash. As with storebought goods, most cash is derived from Popondetta (see Table 11:24), largely in payments from administrative agencies for goods or labour. Over half that acquired from Inonda represents payments by the entrepreneur to those who worked on his contract. Similarly, acquisitions from Evundo and the Girua block are also in the form of payments, from employment by the construction company and a settler respectively. The money from Oro Bay was from the sale of copra. Other cash is in the form of gifts, the main sources being villagers in Inonda and wage-earning kinsmen in Ururu, Popondetta, Saiho and Madang. Since expenditure is directed primarily to trade stores, the pattern of disposals of cash is very similar to that of acquisitions of non-traditional goods. Most goes to stores in Popondetta; disposals within Inonda include the payments to labour, purchases at the trade store and gifts. Payments of tax to the Higaturu Local Government Council account for over one-tenth of all cash disposals. Transactions of significant sums of money are restricted to people or organisations

Table 11:24

Inonda: the geographical distribution of monetary transactions

	<u>Acquisition</u>		<u>Disposal</u>	
	Total \$	Per cent	Total \$	Per cent
Inonda	61.80	18	88.52	26
Ijika	3.10	1	9.10	3
Girua block	38.80	12	5.04	1
Mosou	4.94	1	5.60	2
Seva	4.10	1	0.50	-
Evundo	17.20	5	28.06	8
Urio	-	-	5.92	2
Popondetta	169.40	50	152.30	43
Ururu	14.50	4	4.20	1
Jegerata	2.00	1	-	-
Saiho	4.00	1	-	-
Higaturu	-	-	38.00	11
Madang	12.00	4	-	-
Oro Bay	2.32	1	-	-
All other places*	3.20	1	3.46	1
Total	337.36	100	340.70	100

* Six in all for acquisitions; 8 in all for disposals.

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
<u>Sivepe</u>				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops (\$)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods (\$)	314.16	0.46	25.43	0.04
Cash (\$)	273.72	0.40	239.20	0.35
<u>Inonda</u>				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops (\$)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods (\$)	373.04	0.94	41.08	0.10
Cash (\$)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3

Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

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184 Per capita, the Inonda people handle more than twice the amount of cash and storebought goods as do those in Sivepe. Furthermore, there are important differences in their respective income and expenditure patterns. In Inonda cash is derived from a wide range of activities, among which cash cropping is only of minor importance. Contracting and sales to the Administration provide the single most important source, accounting for almost one-fifth of total income. In Sivepe almost two-thirds (60 per cent) is derived from cash cropping and remittances. In both villages, but more particularly in Inonda, cash is acquired on a very irregular basis. Even with coffee, for which there is a defined buying season of about seven months, there are seldom more than three or four opportunities to sell and the villager has no way of predicting when these will occur. This, perhaps more than actual size of income, is a major determinant of expenditure patterns, making both budgeting and capital accumulation hazardous.

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184 At Inonda, with its higher per capita income and fewer formal demands placed on it,¹ more is spent in trade stores than at Sivepe, yet this expenditure is distributed over a similar range of commodities. In both cases foodstuffs and stimulants account for almost two-thirds, with the balance being spent on a wide range of cheap clothing, household goods and tools. Little of this expenditure is of a 'luxury' nature for, among foodstuffs, flour in Inonda and rice in Sivepe are purchased either wholly or largely during the dry season to supplement the shortage of subsistence foods, tinned fish and meat serve partially to compensate for a general inadequacy of protein in the diet while, among other goods, cartridges, torches and batteries in Sivepe are purchased to improve the efficiency of hunting.

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184 The excess of income over expenditure in Sivepe is also higher than in Inonda, as is the amount of investment in shares and bank deposits, suggesting that the larger incomes at Inonda are associated with a more rapid turn-over of cash. Even the entrepreneur there, who accounted for almost half (43 per cent) of his village's total income, registered a net credit at the end of the survey of only \$5.02 on his household's cash balance. Only he, among all the villagers in the two samples, purchased a major item of capital equipment during the survey - a shotgun costing almost \$50. This followed a cash payment of \$42, for organising the construction of the researcher's house, rather than an extended period of saving from income.

¹ The villagers did not contribute to the Papuan Church Fund during 1964, an item which accounts for 10 per cent of total expenditure in Sivepe and exceeds LGC tax payments in importance.

Table 13:1

Some returns to labour from established cash crops

Crop	Village	No. of sales	Total hours worked*	Return (in cents per hour)	
				Range	Mean
Rubber	Sivepe	3	112.3	9-15	12
Coffee	"	5	727.4	6-13	9
Copra	Inonda	1	30.7	-	8

* Harvesting, processing and marketing.

account of the limited amount of labour-time required to coagulate rubber in the village, when compared with the preparation of parchment coffee or copra. The differences are, however, slight and the return from coffee is inflated on account of the significant labour contribution made by children in pulping being disregarded, while the figure for copra refers to an initial attempt at production and efficiency is likely to have increased subsequently. Although rubber is generally recognised to be an 'easier' crop at Sivepe, estimates of commercial trees within the sub-district do not suggest any widespread preference for it, and cash crop preferences appear to be placed on considerations other than that of the return to labour.

Coffee is the most widely-planted tree, partly no doubt because of encouragement by DASF, but also because it has a much higher value per unit weight than the others, being marketed for 18c per lb. Rubber, as coagulum, markets at 5c per lb and copra and cocoa at about 3c. This higher intrinsic value is extremely important in the prevailing marketing situation where cash crops must normally be carried some distance to the point of sale. Furthermore, not only does the seller of rubber or copra receive a lower gross return per man-journey (see Table 13:3), but his net return may be reduced through repayment for transporting these bulkier crops to the point of sale.

Cash cropping is only one of several important sources of income and, in Inonda, it is comparatively insignificant. Although it can generally be presumed that the principal reason for embarking on cash-producing activities is the acquisition of money,² an investigation of comparative returns to labour does not provide an entirely satisfactory explanation for the status of commercial crops.

¹ See p.18.

² In the case of medical work at Sasembata mission and labouring for settlers, the acquisition of cash is certainly not the sole or even main motive. See pp.30-1, 93.

A, [See Category 461, pp.30-32; Category 797, p.93--Analysis]

Table 13:2

Some returns to labour from cash-producing activities
other than cash cropping

Activity	Village	No. of payments	Total hours worked	Return	
				Total (\$)	Per hour (\$)
'Marketing' pig	Sivape	1	4.8	8.15	1.70
Contracting	Inonda*	1	54.2	36.00	0.66
Sale of timber	" *	2	56.8	20.00	0.35
Labouring, for army	"	6	7.2	2.40	0.33
Operation of trade store	" *	0	6.2 per week**	1.59 per week	0.26
Election work	" *	1	21.8	4.00	0.18
Gambling	"	8	95.0	11.30	0.12
Labouring, for contractor	"	6	323.1	36.00	0.11
Marketing fish and meat	"	19	272.7	25.70	0.09
Marketing produce	Sivape	11	100.3	9.45	0.09
Labouring, for settler	Inonda	2	199.7	9.00	0.05***
Labouring, for road construction	"	2	157.5	8.40	0.05
Contracting	Sivape	1	271.2	6.00	0.02
Medical work	"	1	53.7 per week	0.26 per week	0.05

* Indicates activities only undertaken by the entrepreneur at Inonda.

** All rates per week are expressed as means.

*** In addition to cash, the labourer received at least one meal of taro or rice a day.

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434 As shown in Table 13:2, returns vary greatly, with some of the most favourable activities being pursued only by the entrepreneur in Inonda - a man who profits greatly by his personal contacts with a number of expatriates. By far the highest returns are obtained from marketing pig within the village, but dictates of custom restrict the frequent practice of this. While 'establishment' costs - in the sense of rearing pigs, growing produce, seeking contracts and employment, etc. - have been disregarded in estimating these returns they are, at the present stage of development, very low and often 'hidden' by subsistence sector requirements. Pigs are reared and garden produce grown as a part of the subsistence routine and their marketing is largely incidental; the decision to market wild game may only be taken after a successful hunting expedition; and the entrepreneur is well-known to the Administration as a reliable and resourceful individual and is often approached first about contracts.

The proliferation of cash-producing activities suggests one of three possibilities: that any single source of income, such as cash cropping is by itself inadequate; that cash cropping is not considered the best source of income; that demand exceeds the income from any one source. While opportunities vary greatly from one individual to another, the question of choice between individual activities seldom arises since many occur so irregularly that they cannot be considered reliable sources of income.

Two main considerations appear to determine preferred means for the acquisition of cash: firstly, reliability of income, and, secondly, size of individual cash payments. Each bears some relationship to the criterion of returns to labour but distinctive elements are also incorporated. An established demand for cash implies the need for a regular income and, among the range of activities, only cash cropping and the marketing of subsistence produce can provide this for the majority of villagers. If establishment costs are taken into account returns from the latter are higher, while its complete adjustment to the agricultural routine renders it a more suitable activity for the subsistence farmer. However, the value per unit weight of garden produce marketed at Saiho is, at 2c per lb, insufficient to elicit serious interest in Sivepe, while its perishability, relative to cash crops, is an added deterrent. The unit value of smoked fish and meat sold by the Inonda people at Popondetta market is much higher (20c and 10c per lb respectively) but there are likely to be social pressures operating against the too-frequent commercial exploitation of these village resources: an opposition somewhat similar (in terms of the utilisation of a scarce resource for personal gain) to that voiced in Sivepe to the sale of domestic pigmeat. While such an attitude was never overt during 1964 it serves as a partial explanation for the fact that individuals often distributed game through the gift exchange nexus when they could have sold it at the market.

At Inonda there is a generally expressed preference for wage employment. Compared with most other activities, returns in this are less, but a weekly income is assured. By contrast several hours may be spent in hunting or fishing and marketing with little or no return, and gambling may result in loss. Shortly after the end of the survey four men from Inonda obtained employment in Popondetta, involving a ten-mile journey to work each day. At the normal wage rate for casual labour the returns would be particularly low, while full-time employment would also make it difficult for them to maintain their food gardens. Although some men are able to call on young men from other villages to assist in garden maintenance,¹ this is not always possible and married men often need to leave their jobs to fulfil obligations in the village and embark on a period of intensive garden work.

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Capital formation and investment and the utility of money are matters of immediate concern to the villager who participates in the cash economy in order to raise his standard of living. Trade store stocks are restricted to cheap consumer goods which give the purchaser little lasting satisfaction. Earnings are so small that once major commitments such as council taxes are settled, what remains is often sufficient only for minor purchases. Facilities for the effective saving of cash are inadequate; people are unwilling to walk several miles to deposit small sums at a savings bank agency, and money held in the house is immediately available for casual demands. This unsatisfactory situation is an inevitable feature of a predominately subsistence economy. For this reason villagers appear to place some importance on the size of individual cash payments regardless of the labour input involved, for, the greater the sum, the greater the potential utility of the money. It is in this context that the particular significance of remittances to the Sivepe economy can be understood. All important instances of capital saving and investment in the two villages followed receipts of large sums of cash.²

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The pre-eminence in Sivepe, in terms of size of cash payments, of sales of coffee, pigmeat and remittances is shown in Table 13:3. In spite of the considerable price fluctuations which may occur, coffee is the only one for which there is any degree of reliability of income. The position of pigmeat in terms of size of payment and of returns to labour explains the very considerable temptations evidenced in Sivepe to 'market', while the small payments for rubber, which are a direct function of its low value per unit weight, provide a partial explanation for the failure to develop it further as a cash crop, in spite of its relatively high returns to labour.

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¹ See Crocombe and Hogbin 1963:64.

² See pp.204-5 and 256.

Table 13:3

Sivepe: mean size of individual cash acquisitions
from major sources

Item	No. of occasions	Income (in \$)	
		Total	Mean
Sale of coffee	13	139.95	12.30
'Marketing' pigment	2	18.15	9.08
Remittances (from outside the District)	17	153.00	9.00
Sale of rubber	5	23.70	4.73
Payment for work on settlers' blocks	7	32.60	4.66

Note. The differences between Tables 13:1 and 13:3 in number of sales of coffee and rubber recorded are explicable in terms of the availability of appropriate data on labour inputs.

433 The overall pattern of involvement in the monetary economy covers a wide range of cash-producing activities but suggests only a limited commitment to cash cropping itself. Although the productivity of these crops could be readily increased the villagers do not seem greatly interested. In part they are deterred by marketing difficulties, but of equal importance is a cautiousness founded on past experience. Rimoldi (1966:101) remarks:

The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital.¹

The history of cash cropping among the Orokaiva is extremely chequered and is reflected in a continuing unwillingness to be committed to it as the principal source of income. Instead, more of an opportunist approach to money is adopted, and this may involve taking work where the returns are extremely small.

461 Although Crocombe and Hogbin (1963:83) have suggested that considerable increases in agricultural output could be effected without the introduction of capital, the villagers themselves consider major investments to be an essential concomitant of such increases, if only in order to demonstrate to others the advances they have effected. Preference is therefore placed on activities characterised as much

¹ See also Crocombe and Hogbin 1963:82.

Postscript

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654 Since this report was prepared, we have received news of some interesting developments bearing on the above conclusions.

[434] In 1967 cattle-rearing projects were established under Administration sponsorship and guidance in several lowland Orokaiva villages, including Inonda. The Inonda people have sown and fenced several acres of pasture for ten cows, all of which are calving. The need for cash to buy fencing materials has stimulated several subsidiary projects. Peanuts, which are sold to the Department of Education, are grown on three acres of grassland ploughed by a hired tractor. Three families have piggeries and one earned \$108 from one sale of young pigs during 1968. Another family is starting a chicken farm. Money is also raised from sales of copra, fish and food garden produce. In addition, six of the villagers and two kin from outside have subdivided an area of forest land into 20-acre blocks which are being prepared for planting cocoa and coconut trees. Our informant in Inonda acknowledges the great help received from the Department of Agriculture in encouraging and assisting in these projects.

It seems that the cattle projects were established in villages containing people known to the Administration for their entrepreneurial abilities. It is not known whether similar developments are taking place among the Mt Lamington Orokaiva.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (*leucaena glauca*). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (*tiracola plagiata*). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

[439]
[435]

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

● [434]

Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Pick- ing	Pods*	Net Amount wt. received lbs. \$		Pick- ing	Pods*	Net Amount wt. received lbs. \$	
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Dewhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).

**Bapa man, not member of Yega Scheme.

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Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

Table 2

Ages of blockholders in the Yega Scheme compared to other
Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

1. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

434 each Saturday morning doubled in the 18 months prior to this study
438 but still only about 15 families per week sent in produce for sale.
Larger numbers of Yega attended on Saturdays following the fortnightly administration pay day than on the alternate Saturdays. Cash income obtained by Yega also more than doubled in the same period (from a weekly average of \$1.35 per participating family in January 1963 to \$2.80 per family in July 1964).

434 iii. Gifts from relatives in paid employment. In 1964 this was
431 the main source of cash income of most Yega villagers. Almost invariably the young men in paid employment sent monetary gifts home to their relatives in the village. A sample group of 18 such workers earning an average \$610 per annum in cash or kind remitted an average of \$90 per head per annum to their relatives in the villages.

434 iv. Gambling. As gambling is illegal, people were reluctant
525 to divulge details. Nevertheless, for some men gambling constituted an important source of income. The stakes in domestic games of 'Lucky' were usually betel nuts, but in games with outsiders always cash. Yega gamblers aimed particularly to relieve the workers on nearby plantations of their wages. On one observed occasion a Yega man won \$86 in one night in such a game.

434 Sources of additional income for two sample groups are summarized in Table 3 below:

Table 3

Additional sources of cash income of Yega villagers during 1962

Classification	Personal effort	Gifts	Other*
Holders of cocoa blocks (sample of 25)	8	17	2
Non-holders of cocoa blocks (sample of 14)	8	9	Nil

* This includes savings and gambling (one informant in each).
Some persons received income from two sources.

434 The holders of blocks received more gifts than non-holders of
431 blocks. The main reason for this is that most blockholders had sons or brothers of working age. Many of these worked in paid employment and, by making gifts to blockholders, were ensuring reciprocity of gifts in the future. Table 3 shows only gifts received by people living at home. Monetary gifts were rarely given by the village people but when the 'outside workers' returned for holidays in the village they were fed, boarded and feasted free.

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The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	
Total	<u>1 hr 35 minutes</u> <u>3 hrs 45 minutes</u>

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	
Total	<u>2 hrs 10 minutes</u> <u>4 hrs 35 minutes</u>

●(434)

The cash reward for labour performed may be seen in Table 1. Ethelbert received \$1.12 while Aubrey received \$0.68.

474 The finances of the store were under continual surveillance
443 both by the local inspector and by the Assistant Registrar of
[657] Co-operatives in Port Moresby to whom regular reports were submitted
[454] by the inspector. A general reserve fund was maintained and was
fully invested. Provision for depreciation was made every six
months; this money was banked so that the provision of a new store
building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading
store but over three quarters of its business was conducted with
its shareholders. In January 1963 there were 578 shareholders in
the Gona villages co-operative store, of whom 108 (19 per cent)
were Yega people. Yega shareholders purchased 34 per cent of all
goods sold¹ while non-shareholders bought 13.5 per cent.²

[434] The high rate of spending of Yega shareholders relative to the
total membership was because the Yega people live nearest to the
store at distances ranging from nil to four miles, and because the
Yega probably received a higher cash income than the other groups.

464 The Yega had since the early 1930s been within walking distance
167 of one of the best mission schools in the Northern District, with
[368] a European teacher permanently on the staff. In consequence young
Yega men, who almost without exception left the villages to enter
paid employment, were able to obtain skilled and semi-skilled jobs.
[871] In a sample group of 18 such wage-earners interviewed, the average
[717] remittance to relatives and friends in the village during 1962 was
[434] \$110 p.a. As 40 per cent of the adult male work force was absent
in wage-employment, a considerable amount of cash was being in-
jected into the Yega economy. In addition, some Yega obtained a
regular cash income from produce sold in Popondetta market (see
Dakeyne 1965:102 ff.).

474 Expansion of membership in the G.V.N.S. Co-operative had almost
443 ceased in 1964: 561 members in 1958 increased to 578 in 1961. As
438 a branch store was opened at Buns in 1962, effective shareholder
support for the Killerton store seemed likely to diminish. In any
event there could be no major increase in shareholder numbers among
the Yega, for nearly every adult Yega man resident in the area was
already a shareholder in the co-operative. The bulk of the store's
business was done with its shareholders but non-shareholding friends,
such as members of a shareholder's family or visitors from the towns,
were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

¹ Calculated from the rebates given in December 1962.

² Calculated on the basis of sales for the months October-December
1962.

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[437] The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.¹

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. [465] For example, in Hanusabada village near Port Moresby (where the legal minimum cash wage is a little over \$300 per annum) bride-wealth including more than \$2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the [434] Eastern Highlands, where the average annual cash income per household in 1965 was less than \$100, I counted \$240 cash in one bride-wealth exchange and \$180 in another.

[121] There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

[128] ¹ The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Bureau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

556 preliminary planning. One may walk to the coast at any time
555 and obtain sea-shells by purchase or barter. Moreover, many
435 people now place a higher value on imported objects, both orna-
436 mental and utilitarian.

556 Nevertheless, hambo and di still have a value. A
man derives prestige from being "rich in hambo", a wedding is
not complete without the exchange of valuables, and a man is not
properly dressed for important festivals unless he is adorned
with hambo and di. Moreover, one is sometimes forced to ac-
quire hambo, as in the case of a relatively wealthy man in a
neighbouring village who cannot decline the requests of relatives
(in Inonda and elsewhere) to give them cash for hambo to enable
them to pay their tax.

583 In a bride-price exchange which we observed a total
436 of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and
di. It is significant to note that it was the closest relatives who
gave cash (or cash and valuables) and generally the more distant
ones (or close ones who had no access to cash) who gave
traditional valuables. Likewise the most important of the
recipients kept the cash, and the traditional valuables were dis-
tributed to the more distant kin.⁽¹⁾ At a birthday feast which
we observed only cash was contributed.⁽²⁾ It is apparent that
money is now of greater importance than hambo and di even in
local ceremonial activity.

436 The total value of traditional valuables held in the
village is less than that of cash savings (see p. 54). Savings in
cash amount to 24% of annual cash income in the village and the
remainder of the income is used for current expenses. Cash
circulates much more rapidly than valuables and is used for a
greater variety of transactions. It is likely that the relative
importance of cash will continue to increase.

434 ● Income and expenditure
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Details of cash income and expenditure were
collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

43/51 summarized in Tables 7 and 8. As most income came from paid labour, coffee sales (through the Orokaiva Coffee Growers Society) and compensation payments (from the Administration) the amounts could be checked. The major items of expenditure, however, are more difficult to check and had to be compiled on the basis of detailed discussions of payments made on specific ceremonial occasions, taxation, and equipment, as well as current savings, church donations and so on. The item "food and household expenditure" is only an assessment based on people's estimates of their expenditure per pay period. A total income of £ 324 and expenditure of £ 276 during the eight-month period were accounted for as follows:

Table 7

Cash income

Income (to nearest £)

<u>Source</u>	<u>£</u>	<u>Total</u>	<u>Household range</u>	<u>Household average</u>
Paid work:				
Labouring	168			
Councillor	10			
Mission pension	4	182	0 - 41	23
Produce:				
Vegetables	5			
Pig meat	25			
Coffee	17	47	0 - 26	8
Traditional:				
Bride-price	15			
Gifts of money	8			
Feast donations	6	29	0 - 15	4
Miscellaneous:				
Gambling profits	2			
Compensation ⁽¹⁾	64	66	0 - 34	8
<u>Total</u>		324	3 - 72	41
Plus savings from previous year		83	0 - 29	10
		407	3 - 92	51

(1) This was compensation paid by the Administration for coffee trees removed to widen a road.

Table 8

Expenditure

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511 Expenditure (to nearest £)

<u>Item</u>	<u>£</u>	<u>Total</u>	<u>Household range</u>	<u>Household average</u>
Domestic:				
Food and household	141			
Clothing	26			
Utensils	14	181	3 - 35	23
Capital:				
Equipment	2			
Housing	-	2	0 - 2	-
Traditional:				
Bride-price	57			
Other gifts	12	69	0 - 20	8
Miscellaneous:				
Church donations	2			
Tax (to council)	22	24	0 - 9	3
<u>Total</u>		276	3 - 65	34
Plus savings in hand now		97	0 - 30	12
		373	3 - 95	47

It will be noted that income per household averaged £41 for the eight months period and may be projected as £62 per household per annum or £11 per capita per annum. Only 14% (£47) of the total income was derived from primary production and less than half of this from cash crops. Very little of the income listed comes from within the village. All money derived from work and the sale of produce comes from elsewhere, and from persons or institutions with whom the Inonda people have no relationship other than the contractual one through which they derive income. All the income listed as "traditional" came from persons with whom the Inonda people had kinship or other social relations. Of the £15 in bride-price £8 came from real-

434
511 dents of the village and £7 from non-resident kin. Of the gifts of money £3 came from resident kin and the balance from kin living elsewhere. The feast donations (with the exception of a few shillings) were given by non-residents, some of whom were kin, but most of whom were acquaintances living within a radius of several miles.

525 Food and household costs constitute the major item of expenditure, but a considerable proportion of the imported food is purchased for funerals, feasts and the entertainment of visitors. Part of the food costs may therefore be considered as costs of meeting social obligations. Within the local community, money is distributed through domestic obligations to provide for visitors and kin, and also through ceremonial (usually related to life crises) when cash and other property are exchanged. Probably the greatest cause for its circulation within the community, however, is gambling. Men who are earning wages usually gamble at least once a week and from observation of several games it seems that each player brings from 3/- to £1/- or more. Although the winner for the evening usually gives back a token sum to each loser, he retains most of the money himself. It is understood that gambling is widespread in the area.

511
454 Seven of the eight families had some cash in hand (we have shown this as "savings" though it was not necessarily specifically set aside as savings). The councillor looked after his own money, most of which he kept in a savings bank account. Only one other man had a savings account, and in it he held both his own and his son-in-law's money. The son-in-law felt reluctant to ask for money from the account except to meet social obligations. Two half-brothers (one married and the other single) gave most of their money to their father who seems to have made the decisions about expenditure for the extended family as a whole. The two other men in the village were responsible for looking after their own savings. As with non-monetary valuables, cash and bank books are usually cared for by women, but they have little or no say in the purposes for which the money is spent.

46) apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village. (1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

241 Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

245
434 Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present, (2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

[726]
[198] (1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1923 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

[435] (2) The cash price per pound paid to the grower was 2/- in 1939, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter
at current prices. This assumes an absence of land problems
and crop disease. Even so, the prospect must be heavily dis-
[464] counted because of its uncertainty. Wage labour is now available
[465] to a limited extent at a rate of £150 per year in town areas and
about £75 per year in rural areas. (1) At the time the coffee
was planted, paid employment was scarcer and wages much
lower.

471 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale produc-
[654] tion are easily acquired from current income, the land is not an
item involving monetary cost, coffee seeds are available from
[494] neighbouring gardens and cocoa pods are supplied by the De-
partment of Agriculture at nominal cost. One man in a neigh-
bouring village has a coffee huller in which the Inonda people
have small shares, but as the Orokaiva Coffee Growers Society
(to which the Inonda growers belong) provides for all other pro-
cessing, there is no need for any other equipment in the villages.
Although the introduction of capital may increase output,
considerable increases in output are possible without it, and
capital cannot be regarded as a serious limiting factor in Inonda
cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but
details of sickness were not recorded for those who were in
mourning in their houses. The total for the period is estimated
at 10% of all time accounted for. From superficial enquiries
malaria seems to be the main cause of illness but other common
ailments seen during our stay were filariasis, gastro-enteritis
and influenza. The suitability of the diet for sustained hard work
is not known, though it was noticed that men seldom work two days
in succession on heavy labour like bush clearing (though they per-
formed regular heavy work for wages). On several occasions
when the nights were particularly cold the people got up shortly
after midnight and sat around fires for the rest of the night to

[466] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept
[511] indenture. Direct comparison of gross incomes from cash cropping as against urban
employment ignores the fact that food and housing costs are much higher in towns.

469 duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

470 Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production. (1)

[449] different. The situation regarding perishable products is quite
[435] the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied. (2)

Some implications for policy

121
[464] The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. R. Dalayne is now being prepared for publication in this Bulletin.

472
441 C visits every few days and counts cash, takes stock and places
212 orders for supplies. D. manages his own store.

(592) Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

441
444 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,¹ personal use of store stock by the owner or manager, and the use of gross store income for other purposes.
441
(452)

472
441 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging \$956.² They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

¹ Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about \$60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

² Store turnover for the year for the four entrepreneurs was estimated from available records at \$912, \$500, \$1,992 and \$420 respectively.

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the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own² and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost \$500 from his savings and an

¹ Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

² The other three all have their stores adjacent to their homes.

472 income derived from cash-cropping and trading. Prestige may be
 473 an even more important motivation to the acquisition of vehicles
 494 than it is with trade stores.

435 Other property

472 As shown in Table 3 the entrepreneurs have tools to the average
 471 replacement value of \$30 and equipment associated with their cash-
 422 cropping to an average replacement value of \$180 - an average of
 184 \$210 per man. By comparison Orokaiva people of Inonda village had
 only about \$13 and Sivepe village about \$18 worth of tools and
 equipment per household.

472 The entrepreneurs all had a range of consumers durable goods
 422 far beyond that found in villages. A and B owned bicycles worth
 435 about \$50 each, A and D each had a radio which cost \$60 and \$47
 respectively, and A and D also each owned wood-burning stoves
 costing about \$70 each. The wife of C had a sewing machine which
 cost \$70 (not listed in the table of tools and equipment as it is
 used only for domestic purposes). All had kerosene lamps and three
 of the four had clocks or watches. The average replacement value
 of the above items was in the region of \$125 per man. It is
 estimated that possessions of this kind in Orokaiva villages in
 which we worked would average about \$10 per household.

472 The houses of the entrepreneurs are all somewhat larger than
 342 the average village house, and for many years B maintained two
 184 homes - one in his coffee garden and one in the cocoa garden. D's
 422 home is much more elaborate than the others and contains crockery,
 cutlery and kitchen utensils worth over \$50 as well as beds, chairs,
 tables and curtains which are almost never found among villagers.
 472 A has a modern cocoa fermentary worth \$500, B has a coffee drying
 471 store and trays, estimated worth \$80, and C a copra drier worth
 435 about \$100.

472 By comparison with other Orokaiva people the entrepreneurs
 231 have few livestock, at least partly because they damage the root
 184 systems of the coffee and cocoa trees. A, B and C had none at all
 and D kept thirteen fowls from which he hopes to breed for com-
 mercial egg and poultry production. Householders at Inonda and
 Sivepe, by contrast, kept an average of two pigs and two to three
 fowls each.

472 At the request of the entrepreneurs, details of their individual
 434 holdings of cash are not included in this paper and can only be
 458 made available to researchers or to others with the permission of
 the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

1 Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other com-
 parisons in this section are drawn from the same sources.

492 balance in December 1965 being close to \$300. The value of savings
454 certificates averaged \$10, shares in Orokaiva Coffee Growers' Society
and Gona Co-operative Society \$10, shares in Oro Ltd \$85 and cash
in hand \$42, giving an average total of all liquid assets of \$447.¹
In both cash and other liquid assets A, B and C were much better off
than D, though D's consumption level appeared to be very much higher
because of his government development loan.

492 A, C and D have no traditional valuables (hambo and di) though
422 in each case their brothers do have. B had \$87 worth in May 1963.²
The averages for Inonda and Sivepe villages, by comparison, were
\$18 and \$11 per man. Whereas Inonda people acquired most of their
valuables by inheritance or in traditional exchanges, B acquired
almost all of his for cash.³ In his young days he bought some
when visiting distant places but most of them have been acquired
when people appeal to him at tax collection time (tax is \$4 per
year) or when they need cash for other urgent necessities. The
visitor presents him with a valuable and asks for 'help' in the
form of its cash value. Most persons requesting this help have
been distant maternal kin, but some are friends with whom he had
trading or work connections in earlier years. The fact that none
come from his own village is said to be because neighbours or close
relatives would be ashamed to ask for money in this way. The other
three entrepreneurs say they decline requests of this kind.

Income

492 An attempt to assess annual expenditure was abandoned. It is
434 difficult enough to assess income which comes in relatively large
amounts from limited sources and at long intervals and for which
some records are available as a check. Expenditure, on the other
hand, is in much smaller amounts, for a much wider range of com-
modities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

[184]¹ Cash savings of Inonda and Sivepe village householders, on the
other hand, averaged \$24 and \$21 respectively.

² For method of valuing hambo and di, see Crocombe and Hogbin
1963b:97.

³ We have heard of recent examples of sale within villages else-
where in the Orokaiva area.

Table 4

Estimated annual income of entrepreneurs (\$)*
(excluding interest on savings)

	A	B	C	D	Household average Inonda and Sivepe**
	(1965)	(1963)	(Average 1963-65)	(1965)	(1962-63)
Sales: coffee	320	286	-	-	3
cocoa	175	***	***	50	-
copra	-	-	244	-	-
rubber	-	-	-	-	2
vegetable	-	16	-	20)	4
hunted meat	-	64	-	-	-
Gross store profits [†]	91	50	199	42	-
Compensation [‡]	-	35	-	-	6
Government loan ^{§§§}	-	-	-	140	-
Paid labour	-	-	-	-	23
Gifts, etc.	-	-	-	-	11
	586	451	443	252	49

* In many cases these figures are estimates only.

** Crocombe and Hogbin 1963b:53, and Rimoldi 1966:78.

*** Not yet bearing

[†] Assessed at 10 per cent of turnover.

[‡] Paid by government for coffee trees cut to widen road.

^{§§§} Under a government resettlement scheme.

Table 5

Estimated value of assets in 1965 (\$)*
(not including land, domestic houses or cash savings)

	A	B	C	D	Total	Average	Village householders**
Coffee, cocoa and coconut trees***	3,440	1,320	400	1,740	6,900	1,725	60 (est.)
Buildings [†]	500	80	100	-	680	170	-
Tools and equipment	252	221	79	287	839	210	15
Consumers durables	240	55	75	132	502	125	10 (est.)
Livestock [‡]	-	-	-	26	26	6	24
Traditional valuables	-	87	-	-	87	22	14
	4,432	1,763	654	2,185	9,034	2,258	123

* This table is based on a series of assumptions, many of indeterminable accuracy. It should therefore be regarded as indicative of trends rather than as a precise record.

** For Inonda and Sivepe householders from Crocombe and Hogbin 1963b and Rimoldi 1966. The average per householder for each village have been added and divided by two.

*** Based on valuations for the entrepreneurs kindly supplied by the Chief Valuer, Lands Department (Mr D.D. Balfour-Ogilvy). Value for the village trees was estimated by the writer, on similar criteria.

[†] Including only those buildings used in production (a cocoa fermentary, coffee drying trays and store, and a copra drier respectively). Domestic houses were in all cases built mainly of local materials.

[‡] Pigs assessed at \$10, fowls at \$2 each.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at
Ombi-Tara was purchased by the Department of Agriculture on 5 June
1964.

(439) An Agricultural Assistant was stationed full time at Ombi-Tara
and he helps to grade, weigh and bale the rubber.¹ The baled
rubber is purchased monthly by an Agricultural Officer who drives
to Ombi-Tara from Popondetta. It is marketed in Australia through
the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb
of Ribbed Smoked Sheet, and earning between \$12 and \$34, depending
of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on
loan from the Department of Agriculture. The baling press was
654 provided on permanent loan by a local planter.

402 On 27 October 1964 an Ombi-Tara Village Savings Account was
454 opened at a bank in Popondetta with the sum of \$227.50. During
the following year money was paid in at irregular intervals at an
average rate of about \$14 per month.

On 12 February 1965 the Ombi-Tara people paid \$177.72 for their
own rollers and coagulating pans which they now use for processing,
leaving the Department of Agriculture free to transfer its equip-
ment to another recently initiated scheme. Extra coagulating pans
were bought for \$91.20 on 16 October 1965, leaving a balance of
\$117.84 in the village account.

[651] No deposits were made between October 1965 and the end of
January 1966 because of the need to save money to pay the Local
Government Council tax (\$5 per man) and the Mission jubilee con-
tribution (\$2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at
planting cash crops has failed. They participated in a communal
rice growing project in 1950, encouraged by the Anglican Mission,
but it was a failure, as were similar projects in other parts of
the district. Later in the 1950s a communal cocoa plantation of
245 some 400 trees was established with Administration encouragement.
[654] Disputes over the organisation of work and the distribution of
proceeds caused the abandonment of the project shortly afterwards.²

¹ During our stay all rubber processed at Ombi-Tara was graded
Ribbed Smoked Sheet No.2.

² On the communal rice and cocoa experiments in the Northern
District see Crocombe 1964a:29-33.

12/1 The need for credit at Ombi-Tara where rubber is being planted
452 may be less than at schemes where other crops are being promoted.¹
Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 It is too soon to determine the effects tenure conversion will
423 have on cash cropping and productivity. However, even at this early
182 stage a few observations may be made. The acreage under cash crops
[311] at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.² In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy
[464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling
[177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

¹ For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

² Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

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b) The production of crops specifically for sale.

[654]
[659]

c) The acceptance by the indigenes of supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423]

d) The location of houses on the blocks.
e) The registration, by some individuals, of freehold title.

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It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

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[434]
[666]

Many Yega have made no attempt to earn cash from commercial agriculture. From the time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

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Forty-four per cent of all Yega men are away working. Those who are married are accompanied in almost every instance by their wives and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

[466]

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The main factor in the marked improvement in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[797]

[464]

[P 16- B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

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All wage-earners send a portion of their earnings to their older kinsmen who remain at

(P.17-A)

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

434 home in the villages. By doing this, they are
431 bringing about changes in the established
198 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was
associated with the ceremonial distribution of
goods: the recipients were placed under obli-
gation to repay in similar kind at some future
date, or else lose status. Among the Yega, the
older recipients of gifts in cash or manufac-
tured goods find it impossible to repay such
gifts. As a result there has been an increase
in the prestige of young or middle-aged, edu-
cated men. An instance of this trend was the
almost unanimous election, in 1964, of such
(666) a person, recently returned from paid employ-
(659) ment, as the Yega's first councillor on the Oro
Bay Local Government Council.

(P-17-B)

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepe were tapped to some extent
and the coagulum sold to a factory at Avala. There were six tappers
177 in his population sample of 50, who together earned \$70 in one year.
[43] When I began my field work, the tapping had ceased as the factory
[47] was no longer buying indigenously grown rubber, but a rubber
cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepe. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepe and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established,
four and one-half acres in size, on which theoretically seven
men were to establish rubber stands. The Malayan trees were
planted here, as well as self-sown trees from the other plots
which were dug up and replanted. These plantings occurred shortly
after Rimoldi left. If the new cooperative venture succeeds, it
is likely that the new plot--most of which still remains unplanted--
will be exploited, but people were clearly waiting to see whether
sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
development, inaugurated by the Agriculture Department shortly
177 after it was set up in Popondetta and greatly strengthened by the
311 setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepe were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepe, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepe, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
since the 1964 census. The number of growers has increased from
[43] five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
\$50 and \$100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepe coffee
was collected and promptly paid for in Garombi village, about 15
minutes' walk from Sivepe. I did not take another coffee census

245 but would estimate plantings to be about 4,000 trees, occupying
177 an area of eight acres.

311 Among resources which produce significant current income in
Sivepe and Inonda, two other types must be briefly mentioned here,
though they must be more fully discussed elsewhere. Income is
434 earned by men who are normally resident in the villages. When
167 these men are married and living away from the village with their
families, they provide support to the home people on critical
occasions and also, when villagers pay visits to them. I briefly
met a few Sivepe men who settled in Port Moresby and these men
were called upon, during the year of my study, to pay several plane
fares and feed several men who tried their luck in looking for jobs
in Port Moresby.

167 Secondly, men who return to the village after outside
employment are bringing savings into the village which forms a
461 significant source of revenue. Such savings often form part of the
bride-wealth paid by clansmen and it is thus the affines who spend
[583] it. During the year, four Sivepe men went to Port Moresby for
employment and three returned; one Sivepe man took up a job on a
plantation for awhile, largely to pay overdue taxes; a number of
434 men ordinarily working outside came home for short visits. Probably
837 the most regular income is derived from absentees when the men go
out to work by themselves, leaving their wives and children behind
613 in the village. Six such split families existed in Sivepe; in
every case, regular envelopes containing money were posted to the
wife. In the cases I investigated, eight to ten envelopes arrived
in a year, each containing \$10 and sometimes \$20. These envelopes
represent a considerable percentage of village income. As long as
the money keeps coming, a man knows that his relations will closely
watch his wife and will carry out obligations towards his affines;
thus, his wife will be kept under strong moral constraint from all
sides. It would be cynical to explain the generosity with which
men maintain their wives wholly by such motives, but the Orokaiva
do regard "looking after" the wives of absentees as a valuable
service and the envelopes are thus a form of repayment. "Looking
after" the wife and children, indeed, comprises a wide range of
services which must be performed by men of the lineage and which
are a reasonable charge against the income of a wage earner. As
most places of employment in Papua-New Guinea do not provide for
married accommodation, we may regard villagers and migrants as
engaged in a joint economic enterprise in which each group performs
services and obtains benefits.

464 At the time of the eruption several Sivepe men were working
on plantations; today, Sivepe people are interested only in the
better-paid town jobs, mostly in Port Moresby. In Inonda, however,
two men often take up short spells of plantation work while a
third, trained as a driver by an anthropologist, has a regular
government job in Popondetta.

184 The difference in pattern between the two villages may well be
177 explainable by the influence of the improved schooling and the close
contact with the mission station found in Sivepe, in common with many
of the other resettlement villages. These improved facilities may to
some extent be regarded as social consequences of the eruption, as they
were developed in the resettlement villages in the wake of resettlement
to replace the earlier facilities at Sangara.

434 Money income has risen rapidly since the war. About the time
184 of the eruption, six of the present inhabitants of Sivepe were away
on jobs outside the village. Not only are far more Sivepe people
absent today on wage work, but the village itself has a steady income.
At the time of Rimoldi's study, his sample was said to have spent
annually \$410 while its income for 1962 totalled \$328 or \$28 per
household. Today this has risen greatly; the 14 coffee gardens, with
over 4,000 trees, produced some 6,000 pounds of coffee, worth in all
about \$1,000; gifts from absent wage-earners over the year totalled
at least \$500 and other income (paid work, sale of products, etc.)
at least \$200. This makes up a minimal total of \$1,700 or an average
of \$60 per household. I would not be surprised if actual total income
was as high as \$2,000 but it is very hard to obtain reliable facts.
There is no doubt, however, that the coffee gardens have made Sivepe
substantially wealthier, while in Inonda only the government driver
has substantially improved his position since 1962, when Inonda's
average household income from paid work, produce and gifts was
[465] 833 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular
salary of about \$700 p.a. stands out in both villages.

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62/ station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one
united big village. When the clans came over in 1959, they followed
the same pattern as the Sorovi immigrants followed in Sivepe: they
arranged their houses so as to maintain, in a subtle but unmistakable
way, their own identity. They formed in effect a second rectangle
which formed a harmonious continuation of the first rectangle but which
was separated by just half a chain. In 1966, the front and the back
half of Hohorita held separate feasts, each inviting a different
village. In 1967, the councillor made plans to clear the gap between
the two halves, remove the two old houses which emphasised the separation
and build new houses in the cleared area to join the rows together.

[764] Around this time, the Sombou people began to establish themselves
[775] in Hohorita, leaving their old village behind. I think it was they
who filled the gap between the rows. The councillor had long been at
pains to close down the small villages of Sombou and Kakita and Sombou
was finally persuaded after the death of an old migrant who had remained
a pagan. As he could not be buried in the Christian cemetery, and
people did not feel disposed to carry out the full involved ritual to
placate the ghost, they preferred to shift their village. (They thought
that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
hospital, three miles from the Higaturu Council chambers. The school,
conducted by the mission on Hohorita station, offers an education to
the end of Standard 3.

62/ The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
month or two after the feasts and by that time two very small pigs had
appeared which were there for a special reason I have forgotten.

434 Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
were much better looked after, and there were far more of them. Every
man had his coffee garden and an income of \$100 per annum from coffee
[245] was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were
permanently away working. The reason for this was that there are a
number of plantations quite close to Hohorita and those who needed
to work to pay off bridewealth, etc., could do so without going too
far afield. Money to pay taxes and other regular outgoing expenses
would come from coffee. Men who were able to find skilled jobs,
clerical or professional work usually had their wives with them. An
important resource of Hohorita, not shared by Sivepe, is the avail-
ability of good jobs within a reasonable distance; the fact that Hohorita
families do not break up in the same way as Sivepe ones indicates that
such separation is probably economically motivated. It is necessary
for a young man to earn his trophies, so to speak, which in the modern
world means money, but if he can do it without a prolonged absence
from home, he prefers staying home.

731 Immediately after the eruption, the Sangara people decided to
 [583] waive all bridewealth, so that a large percentage of the women in
 [464] Hohorita were married without one. At the present time, bridewealth
 [595] is reinstated, and young men go to neighbouring plantations, which are
 plentiful--or else further abroad--to earn them. While many husbands
 worked outside Hohorita, most of them were able to return home at
 weekends. Polygamy was pronounced before the eruption, but it seems
 that the polygamists became victims of the eruption and polygamy no
 longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
 above that of Sivepe, the reasons are: better facilities during the
 years 1945-1951, loss of many members of the older age groups in the
 eruption, special efforts made by Bishop Hand at Irihambo to draw
 Sangara into mission teaching. This higher standard is reflected in
 the statistics of persons who at one time or another have been in
 skilled occupations. (Table 21). The persons who returned to Hohorita
 did so with the express idea of making some money out of coffee; the
 average income from coffee in Hohorita is certainly far in excess of
 that in Sivepe (about \$100 per annum).

871 Hohorita does feel that it is held back by the present educational
 provisions which are little better than those in Inonda and much
 inferior to those at Sasembata. (At Hohorita, there is no schooling
 beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
 people compare the school unfavourably with the government school at
 the Sangara resettlement block which offers Standard 6, and which,
 furthermore, has more highly qualified teachers on the staff. My
 own impression was that the head teacher at Hohorita is a very good
 man; some of the criticism of him is no doubt due to spite, for he is
 of local origin. Still, the general criticism of facilities at
 Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
 563 villages discussed, as the population is drawn from different parts
 592 of the Sangara tribe and intermarriage with other tribes has been
 frequent. The explanation may be found in the pressure, after the
 disaster, to find mates when most preferred potential marriage partners
 had died in the eruption. This breaking down of the endogamous emphasis
 after wars and disasters is, as I pointed out earlier, traditional
 among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
 which was, according to informants, made by a popular meeting shortly
 591 after the eruption. According to this arrangement women who married
 582 outside Sangara, would be allowed the same land rights as though
 they had been sons. This was done in an effort, so I was told, to add
 to the depleted Sangara population. Men would thus be encouraged to
 settle on Sangara land rather than take their Sangara wives home with
 them. Two men from the Sasembata district are now living in Hohorita
 under this arrangement. They keep up normal exchange relations with
 their home district, e.g., I know one of them lent hamba for the kere
 A (See Cat. 116, p. 228--Analyst)

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT
COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

<u>Revenues</u>		<u>Expenditure</u>	
Tax: 2000 males	\$16,000	<u>A. Personal Emolument</u>	
1000 females	1,000	Council President	\$ 156
Truck hire	13,000	Council Vice-President	108
Aid Post Orderlies		Councillors	1,560
Subsidy	1,250	Exec., Fin. Ctee	108
Water Supply Subsidy	3,320	Council Clerk	1,170
Aid Post Subsidy	240	Messenger	390
Adult Education Subsidy	780	Landrover Driver	500
Miscellaneous	2,900	Truck Drivers	1,450
TOTAL	\$38,490	Agric. Fieldworker	234
		Market Manager	260
		Aid Post Orderlies	2,500
		Health Worker	255
		TOTAL	\$ 8,692
		<u>B. Revenue Expenditure</u>	
		Council Administration	\$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,685
		TOTAL	\$ 9,185
		<u>C. Capital Expenditure</u>	
		Drivers' houses (2)	\$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff House, Health	
		Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	\$21,434
		GRAND TOTAL	\$39,212

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731 gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

731 What distinguished the relocated villages from the others was
184 not greater contact with European-dominated institutions. On the
[177] contrary, it would seem that contact with such institutions was
probably most frequent among the male residents of Inonda, who
were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position.
● [424] Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

731 In summary, the major outcomes of the eruption and relocation
651 have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

[177] The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

Alienation in the Creation of Exchange Value

435 In the Orokaiva village, exchange value may enter in four ways:
 436 through cash crops, outside gifts, labour and business. The two
 (434) latter categories are recent. Whereas wages were an insignificant
 survey (Newton 1978) in a typical village showed an overall income
 of about K675 per household, made up of coffee returns 35%, wages
 37%, migrant gifts 12%.

[776] We have no special studies of work concepts in this sector, but
 some general indications. It may seem surprising that Jesus Christ
 was nominated as the originating deity of monetary compensation
 for work, but New Guineans widely regard him as originator of
 European wealth and therefore also, not illogically, of the concept
 of money and exchange value. The idea of converting labour into
 money, in itself, greatly interests New Guineans. Thus Daniel de
 Coppet shows that in the Are'are social system there is but one
 traditional method of converting food and services into shell
 money, viz by acting as an undertaker. For this reason the office
 of undertaker was a highly valued one. Thus Councillor Colin might
 well genuinely revere a deity or culture hero who instituted the full
 convertibility of labour into money.

461 The term *pure* *ari* is appropriate to describe the white man's
 435 labour if for no other reason than that a 'job' just like the *pure* is
 a place where one spends the day. The new dispensation has, sure
 enough, its own conflict (*isoro*) and mode of conflict resolution.
 [694] Councillor Colin brings this out by his example of the policeman
 who puts village men into handcuffs and takes them off to court.
 [759] In such a case it was the task of the sorcerer to ensure that the
 men would escape conviction and be set free again.³⁰ Virtue, in
 such a system, is largely a matter of keeping out of trouble, but
 also it is a matter of not squandering the money but reserving
 some — ideally half — of it to serve the needs of kinsmen and
 fellow villagers: contributions to ceremonial payments, feasts,
 travel expenses etc. Briefly, wages tend to be converted into
 political power.

435 No great value was usually attached to conversion to western
 436 commodities, except where these became valued prestations. Thus,
 when transistor radios became valued prestations, they began to
 appear in large quantities in the villages and were mostly paid for
 by absentee workers.

[167] The subsistence/feasting duality continues in this system in that
 some money is needed for the former but a labourer would have
 little status in his home village if he did not set aside something for